

AN 115:237352 HCA
TI Protective oxide **coating** on aluminum and magnesium alloys
AU Anon.
CS UK
SO Res. Discl. (1991), 330, 798
CODEN: RSDSBB; ISSN: 0374-4353
DT Journal
LA English
AB A protective oxide **coating** on **Al** and **Mg** alloys eliminates the need for chromate or other chem. conversion **coating** processes. Exposing the alloys to deionized hot water followed by hot air drying forms a corrosion-resistant protective oxide **coating**. A typical cycle used to grow a 80 nm thick oxide **layer** requires 10 min with 3 tanks of water at 160.degree.F, 1 tank at 180.degree.F, and an air-drying tank at 250.degree.F. Resistivity of the deionized water in each tank is >2 M.OMEGA.-cm. These oxide films are also grown at slower rates by using colder water or water having a lower resistivity.

AN 1995-012281 [02] WPIDS
DNC C1995-005713
TI Mfr of low-iron loss oriented electromagnetic steel sheet - comprises
applying soln contg **oxide** raw material forming **tension**
coating and fines of metal salt and/or **water** soluble metal salt,
drying coatings and baking form **oxide** film.
DC L03 M13
PA (YAWA) NIPPON STEEL CORP
CYC 1
PI JP 06299366 A 19941025 (199502)* 5p
JP 2667098 B2 19971022 (199747) 4p
ADT JP 06299366 A JP 1993-84833 19930412; JP 2667098 B2 JP 1993-84833 19930412
FDT JP 2667098 B2 Previous Publ. JP 06299366
PRAI JP 1993-84833 19930412
AB JP 06299366 A UPAB: 19950117

The oriented electromagnetic steel sheet is made by forming an oxide
tension coating on the surface of a finishing annealed oriented
electromagnetic steel sheet, by applying a soln. contg. an oxide raw
material for forming the tension coating, to which 0.1-5 wt.% fines of
metal salt and/or **water** soluble metal salt was added, to the
sheet surface, drying the coatings and baking at 500-1350 deg.C, to form
the oxide film.

USE - Used for magnetic iron core material having low-iron loss.

AN 114:47621 HCA
TI Electrolytic white colored film of aluminum in aluminum(3+)-magnesium(2+) system bath
AU Ishida, Shinichi; Ito, Seisiro
CS Tech. Dev. Dep., Nippon Alum. Mfg. Co., Ltd., Osaka, 532, Japan
SO Shikizai Kyokaishi (1990), 63(10), 598-602
CODEN: SKYOA0; ISSN: 0010-180X
DT Journal
LA Japanese
AB A white film was obtained by electrolytic coloring of the anodic oxide film on **Al** in an electrolytic bath contg. a mixt. of $\text{Al}_2(\text{SO}_4)_3$ and MgSO_4 . To study the mechanism of electrolytic coloring, anodic stripping was applied to the film in a H_2SO_4 bath. As a result, the white film was slightly decolorized by the anodic stripping in a H_2SO_4 bath. But the white film, once dipped in hot water for >5 min, was not decolorized at all even by the stripping chems. **Mg** was reduced, **deposited** in the film pores, and changed to the hydrate and **oxide** in hot **water**. Cross sections of the white films were obsd. by TEM. The **deposition layer**, such as the hydrate and oxide, was obsd. at the bottom of the film pores. But these **depositions** were similarly obsd. in the film slightly decolorized by anodic stripping and were not changed.

AN 1995-012281 [02] WPIDS
DNC C1995-005713
TI Mfr of low-iron loss oriented electromagnetic steel sheet - comprises
applying soln contg **oxide** raw material forming **tension**
coating and fines of metal salt and/or **water** soluble metal salt,
drying coatings and baking form oxide film.
DC L03 M13
PA (YAWA) NIPPON STEEL CORP
CYC 1
PI JP 06299366 A 19941025 (199502)* 5p
JP 2667098 B2 19971022 (199747) 4p
ADT JP 06299366 A JP 1993-84833 19930412; JP 2667098 B2 JP 1993-84833 19930412
FDT JP 2667098 B2 Previous Publ. JP 06299366
PRAI JP 1993-84833 19930412
AB JP 06299366 A UPAB: 19950117
The oriented electromagnetic steel sheet is made by forming an
oxide tension coating on the surface of a finishing
annealed oriented electromagnetic steel sheet, by applying a soln. contg.
an **oxide** raw material for forming the **tension** coating,
to which 0.1-5 wt.% fines of metal salt and/or **water** soluble
metal salt was added, to the sheet surface, drying the coatings and baking
at 500-1350 deg.C, to form the oxide film.
USE - Used for magnetic iron core material having low-iron loss.
Dwg.0/0